Rover the Robot

Overview: In *Rover the Robot*, students are introduced to Roversa and learn how to make their robot go. The read-aloud activity and subsequent spelling race thoughtfully integrates literacy and hands-on experimentation with robotics.

What will students do?	What will students accomplish/learn?
"Rover the Robot" is a read-aloud activity that introduces students to Roversa robotics while developing literacy skills, i.e., decoding, encoding, and phonemic-awareness skills.	Students will become comfortable operating Roversa and develop important literacy skills along the way (to get Rover over the finish line).

Vocabulary	Definition
Spell (v.); Spelling (noun)	Spell (verb) means to write or name the letters of a word in the correct order. Spelling (noun) refers to the act of spelling, the correct sequence of letters in a word, or the ability to spell correctly. In essence, "spell" is the action, while "spelling" can refer to the process or the result.
Robot (noun)	A robot is a machine that can do tasks automatically, often following instructions or programmed commands.
Click	To select something on a computer screen–or in this case, on Rover the Robot–by pressing a button or mouse
Spelling race	In the context of this lesson, "spelling race" refers to a contest of speed where students compete against each other by correctly spelling a series of words in order to earn points to move their Rover across the finish line.

Estimated time	Materials
30-45 mins	• Class Slides: Rover the Robot • Copy of *Rover the Robot* by Jasmine Warga

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	• Dry-erase boards and dry-erase markers (for students) • 8-10 Roversa robots • "Starting line" and "Finish line" for Roversa race

Teaching Strategy

This lesson includes:

- Experimentation Culture and Pair Programming are incorporated in the spelling race by students working in pairs to earn points and operate their Rover with the goal of making it to the finish line.
- Ask 3 Then Me is incorporated in the read-aloud activity, specifically when the tip on the wall is noticed before soliciting the teacher's help.

Activity 1: Read-aloud activity:

- The teacher reads *Rover the Robot* to students.
- The teacher provides direct instruction of phonemic-awareness and decoding skills while engaging the student audience with prompts and questions scattered throughout the story.
- By the end of the story, students discover how to make Rover go/move forward!

Activity 2: Game/spelling race:

- Student pairs will earn points by correctly spelling words on their dry-erase paddle. 1 point is worth 1 move. The goal is to earn enough points/moves to get Rover across the finish line, i.e., win the race!
- Each round, students will switch between scribe and operator:
  - **Scribe** - writes the spelling word on their paddle to earn points for their team.
  - **Operator** - carries out their team's moves by pressing buttons to guide Rover towards the finish line.
- The teacher presents one spelling word at a time, checks each team's spelling, and if spelled correctly, teams are awarded points to move their Rover toward the finish line.

Activity 3: Reflection (assessment)

- Teacher facilitates a class-wide discussion to generate student feedback on their learning experience:

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- What is one thing you learned during the lesson?
- What was the easiest part vs. hardest part of the activity?
- Would you like to do something like this again? Why or why not?

Assessment Strategy

Standard	Assessments
K.AP.2 The student will plan and implement algorithms that include sequential order. a. Identify tasks that are completed using sequential step-by-step instructions. **K.CSY.1** The student will identify the purpose and components of a computing device. e. Demonstrate proper use of computing devices.	**Reflection: class-wide discussion** 1. What did you learn about during this lesson? (Share one thing you learned) 2. What was the easiest part of this activity? 3. What was the hardest part of this activity? 4. Would you like to do something like this again, why or why not? **Formative assessment:** walking observations made throughout the entirety of the lesson.
K.FFR.1 Print Concepts: The student will apply knowledge of how print is organized and read. A. Follow words from left to right and from top to bottom on a printed page, including the return sweep from line to line. B. Demonstrate knowledge of a sentence, word, and letter. C. Demonstrate knowledge that spoken words are represented in print and separated by spaces. F. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending, punctuation).	**Reflection: class-wide discussion** 5. What did you learn about during this lesson? (Share one thing you learned) 6. What was the easiest part of this activity? 7. What was the hardest part of this activity? Would you like to do something like this again, why or why not?

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K. FFR.2 Phonological and Phonemic Awareness: The student will orally identify and produce various phonemes (individual sounds) within words to develop phonemic awareness in support of decoding (reading) and encoding (spelling). A. Demonstrate ability to segment spoken words in sentences and syllables in words. B. Blend and segment one syllable words by onset and rime.	**Formative assessment:** walking observations made throughout the entirety of the lesson.

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